L Number	Hits	Search T xt	DB	Time stamp
1	149	uteroglobin or blastokinin	USPAT; US-PGPUB; EPO; DERWENT	2003/12/30 16:27
2	25	(purified or purification or purifying or purify) with (uteroglobin or blastokinin)	USPAT; US-PGPUB; EPO; DERWENT	2003/12/30 17:13
3	94	bacteria? and (uteroglobin or blastokinin)	USPAT; US-PGPUB; EPO; DERWENT	2003/12/30 17:14

30/12/2003

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NEWS	5	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS	6	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS	7	AUG 18	Simultaneous left and right truncation added to PASCAL
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NEWS	12	SEP 29	DISSABS now available on STN
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NEWS	14	OCT 21	BIOSIS file reloaded and enhanced
NEWS	15	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS	16	NOV 24	MSDS-CCOHS file reloaded
NEWS	17	DEC 08	CABA reloaded with left truncation
NEWS	18	DEC 08	IMS file names changed
NEWS	19	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS	20	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAplus
NEWS	21	DEC 17	DGENE: Two new display fields added
NEWS	22	DEC 18	BIOTECHNO no longer updated
NEWS	23	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS	24	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS	25	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS	26	DEC 22	ABI-INFORM now available on STN

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=> s uteroglobin or blastokinin
L1 2265 UTEROGLOBIN OR BLASTOKININ

=> s recombinant or engineered
L2 714840 RECOMBINANT OR ENGINEERED

=> s l1(s)l2
L3 105 L1(S) L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 63 DUP REM L3 (42 DUPLICATES REMOVED)

=> s (purify or purifying or purified or purification)(s)l1
L5 151 (PURIFY OR PURIFYING OR PURIFIED OR PURIFICATION)(S) L1

=> s l5 and l2
L6 18 L5 AND L2

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7 12 DUP REM L6 (6 DUPLICATES REMOVED)

=> d ibib abs 1-12

L7 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:42069 CAPLUS
DOCUMENT NUMBER: 138:105707
TITLE: Methods for the production of **purified**

recombinant human **uteroglobin** for
the treatment of inflammatory and fibrotic conditions
INVENTOR(S): Pilon, April L.; Welch, Richard E.
PATENT ASSIGNEE(S): Claragen, Inc., USA
SOURCE: PCT Int. Appl., 127 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003003979	A2	20030116	WO 2002-US20836	20020702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003109429	A1	20030612	US 2001-898616	20010702

PRIORITY APPLN. INFO.: US 2001-898616 A 20010702
US 1997-864357 A2 19970528

AB The present invention relates generally to the prodn. of **recombinant** human uteroglobin (rhUG) for use as a therapeutic in the treatment of inflammation and fibrotic diseases. More particularly, the invention provides processes, including broadly the steps of bacterial expression and protein purifn., for the scaled-up prodn. of rhUG according to current Good Manufg. Practises (cGMP). The invention further provides anal. assays for evaluating the relative strength of in vivo biol. activity of rhUG produced via the scaled-up cGMP processes.

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:455007 CAPLUS
DOCUMENT NUMBER: 139:21084
TITLE: Methods for the production of **purified** **recombinant** human **uteroglobin** for the treatment of inflammatory and fibrotic conditions
INVENTOR(S): Pilon, Aprile L.; Welch, Richard W.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of U. S. Ser. No. 864,357.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003109429	A1	20030612	US 2001-898616	20010702
US 6255281	B1	20010703	US 1997-864357	19970528
US 2002173460	A1	20021121	US 2001-861688	20010521
WO 2003003979	A2	20030116	WO 2002-US20836	20020702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

US 2003207795 A1 20031106 US 2002-187498 20020702
PRIORITY APPLN. INFO.: US 1997-864357 A2 19970528
US 2001-898616 A 20010702

AB The present invention relates generally to the prodn. of **recombinant** human uteroglobin (rhUG) for use as a therapeutic in the treatment of inflammation and fibrotic diseases. More particularly, the invention provides processes, including broadly the steps of bacterial expression and protein purifn., for the scaled-up prodn. of rhUG according to current Good Manufg. Practices (cGMP). The invention further provides anal. assays for evaluating the relative strength of in vivo biol. activity of rhUG produced via the scaled-up cGMP processes.

L7 ANSWER 3 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 2003:77717 SCISEARCH
THE GENUINE ARTICLE: 632MT
TITLE: Novel transglutaminase inhibitors reverse the inflammation of allergic conjunctivitis
AUTHOR: Sohn J; Kim T I; Yoon Y H; Kim J Y; Kim S Y (Reprint)
CORPORATE SOURCE: Cornell Univ, Dept Neurosci, Weill Med Coll, 785 Mamaroneck Ave, White Plains, NY 10605 USA (Reprint); Cornell Univ, Dept Neurosci, Weill Med Coll, White Plains, NY 10605 USA; Cornell Univ, Coll Med, Burke Med Res Inst, White Plains, NY 10605 USA; Asan Med Ctr, Dept Ophthalmol, Seoul, South Korea
COUNTRY OF AUTHOR: USA; South Korea
SOURCE: JOURNAL OF CLINICAL INVESTIGATION, (JAN 2003) Vol. 111, No. 1, pp. 121-128.
Publisher: AMER SOC CLINICAL INVESTIGATION INC, 35 RESEARCH DR, STE 300, ANN ARBOR, MI 48103 USA.
ISSN: 0021-9738.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 47

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Steroidal anti-inflammatory drugs induce proteins that inhibit phospholipase A(2) (PLA(2)), including **uteroglobin** and lipocortin-1 (annexin I). **Uteroglobin** and lipocortin-1 retain several conserved sequences. Based on these sequences, several nonapeptides (antiflammins) were synthesized. These nonapeptides were shown to have anti-inflammatory effects in vitro and in vivo, possibly by inhibiting PLA(2). Subsequent research showed that PLA(2) is activated by transglutaminase 2 (TGase 2). We hypothesize here that TGase 2 inhibitors may increase the anti-inflammatory efficacy of inhibiting PLA(2) activity. To test this theory, we constructed **recombinant** peptides containing sequences from pro-elafin (for inhibition of TGase 2), and from lipocortin-1, lipocortin-5, and **uteroglobin** (for inhibition of PLA(2)). The **recombinant** peptides, which had dual inhibitory effects on **purified** TGase 2 and PLA(2), reversed the inflammation of allergic conjunctivitis to ragweed in a guinea pig model. The present work suggests that novel **recombinant** peptides may be

safe and effective agents for the treatment of various inflammatory diseases.

L7 ANSWER 4 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 2001:407317 SCISEARCH
THE GENUINE ARTICLE: 431NT
TITLE: Immunolocalization of CC10 in Clara cells in mouse and human lung
AUTHOR: Ryerse J S (Reprint); Hoffmann J W; Mahmoud S; Nagel B A; deMello D E
CORPORATE SOURCE: St Louis Univ, Hlth Sci Ctr, Dept Pathol, 1402 S Grand Ave, St Louis, MO 63104 USA (Reprint); St Louis Univ, Hlth Sci Ctr, Dept Pathol, St Louis, MO 63104 USA; Cardinal Glennon Mem Hosp Children, St Louis, MO 63104 USA
COUNTRY OF AUTHOR: USA
SOURCE: HISTOCHEMISTRY AND CELL BIOLOGY, (APR 2001) Vol. 115, No. 4, pp. 325-332.
Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
ISSN: 0948-6143.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 13

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Two antisera, denoted R41 and R42, were raised against a synthetic peptide from the murine Clara cell-specific protein CC10, and one antiserum, denoted R40, was raised against human **recombinant uteroglobin**, the human homolog of murine CC10. **Purified** antigen-specific antisera, denoted R40AP, P41AP and R42AP were prepared using peptide columns. The **purified** antisera were characterized by dot blots, immunohistochemistry, and immunoblots. Immunohistochemistry of mouse lung showed specific labeling of Clara cells in distal bronchioles by all three antisera. In human lung, the anti-**uteroglobin** antiserum specifically labeled Clara cells while the anti-mouse peptide antisera had weak crossreactivity and higher background staining. Electron microscopy revealed immunogold labeling of CC10 granules in Clara cells of mouse lung with all antisera. All antisera also labeled a 5-kDa protein on immunoblots of mouse lung homogenates. The surface epithelium of the alveolar air spaces around the distal bronchioles were CC10 positive suggesting a functional activity for CC10 in the lung parenchyma distal to Clara cells. R40AP immunohistochemical staining of sections of normal human lungs and lungs from patients with surfactant protein B deficiency, bronchopneumonia, and idiopathic alveolar proteinosis illustrate the utility of the anti-human CC10 antibody for diagnostic pathology.

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:84568 CAPLUS
DOCUMENT NUMBER: 132:141933
TITLE: Use of **recombinant** human uteroglobin in treatment of inflammatory and fibrotic conditions
INVENTOR(S): Pilon, Aprile; Mukherjee, Anil B.; Zhang, Zhongjian
PATENT ASSIGNEE(S): Claragen, Inc., USA; National Institutes of Health
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000004863	A2	20000203	WO 1999-US16312	19990719
WO 2000004863	A3	20001123		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002160948	A1	20021031	US 1998-120264	19980721
CA 2338299	AA	20000203	CA 1999-2338299	19990719
AU 9951124	A1	20000214	AU 1999-51124	19990719
EP 1100524	A2	20010523	EP 1999-935698	19990719
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9912279	A	20020102	BR 1999-12279	19990719
JP 2002521316	T2	20020716	JP 2000-560856	19990719
PRIORITY APPLN. INFO.:			US 1998-120264 A	19980721
			WO 1999-US16312 W	19990719

AB Compns. and methods for preventing or treating primary cancer cell growth and tumor metastasis, as well as stimulation of hematopoiesis are described and claimed. The present invention also relates to methods of treating cancer and uteroglobin receptor-related conditions by targeting a uteroglobin receptor with **recombinant** human uteroglobin (rhUG). Also disclosed and claimed are methods of **purifying** a **uteroglobin** receptor and methods of using such receptor(s) to identify **uteroglobin** structural analogs and UG-receptor ligands.

L7 ANSWER 6 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 1999:277387 SCISEARCH
THE GENUINE ARTICLE: 182PT
TITLE: Loss of transformed phenotype in cancer cells by overexpression of the uteroglobin gene
AUTHOR: Zhang Z J; Kundu G C; Panda D; Mandal A K; MantileSelvaggi G; Peri A; Yuan C J; Mukherjee A B (Reprint)
CORPORATE SOURCE: NICHHD, SECT DEV GENET, HERITABLE DISORDERS BRANCH, NIH, BLDG 10, ROOM 9S241, BETHESDA, MD 20892 (Reprint); NICHHD, SECT DEV GENET, HERITABLE DISORDERS BRANCH, NIH, BETHESDA, MD 20892
COUNTRY OF AUTHOR: USA
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (30 MAR 1999) Vol. 96, No. 7, pp. 3963-3968.
Publisher: NATL ACAD SCIENCES, 2101 CONSTITUTION AVE NW, WASHINGTON, DC 20418.
ISSN: 0027-8424.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 36

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Uteroglobin** (UG) is a multifunctional, secreted protein that has receptor-mediated functions. The human UG (hUG) gene is mapped to chromosome 11q12.2-13.1, a region frequently rearranged or deleted in many

cancers. Although high levels of hUG expression are characteristic of the mucosal epithelia of many organs, hUG expression is either drastically reduced or totally absent in adenocarcinomas and in viral-transformed epithelial cells derived from the same organs. In agreement with these findings, in an ongoing study to evaluate the effects of aging on UG-knockout mice, 16/16 animals developed malignant tumors, whereas the wild-type littermates (n = 25) remained apparently healthy even after 1 1/2 years. In the present investigation, we sought to determine the effects of induced-expression of hUG in human cancer cells by transfecting several cell lines derived from adenocarcinomas of various organs with an hUG-cDNA construct. We demonstrate that induced hUG expression reverses at least two of the most important characteristics of the transformed phenotype (i.e., anchorage-independent growth on soft agar and extracellular matrix invasion) of only those cancer cells that also express the hUG receptor. Similarly, treatment of the nontransfected, receptor-positive adenocarcinoma cells with **purified recombinant** hUG yielded identical results. Taken together, these data define receptor-mediated, autocrine and paracrine pathways through which hUG reverses the transformed phenotype of cancer cells and consequently, may have tumor suppressor-like effects.

L7 ANSWER 7 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 1998:671817 SCISEARCH
THE GENUINE ARTICLE: 114NY
TITLE: Uteroglobin (UG) suppresses extracellular matrix invasion by normal and cancer cells that express the high affinity UG-binding proteins
AUTHOR: Kundu G C; Mandal A K; Zhang Z J; MantileSelvaggi G; Mukherjee A B (Reprint)
CORPORATE SOURCE: NICHHD, SECT DEV GENET, HERITABLE DISORDERS BRANCH, NIH, BLDG 10, RM 9S241, BETHESDA, MD 20892 (Reprint); NICHHD, SECT DEV GENET, HERITABLE DISORDERS BRANCH, NIH, BETHESDA, MD 20892
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (28 AUG 1998) Vol. 273, No. 35, pp. 22819-22824.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.
ISSN: 0021-9258.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 69
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Uteroglobin** (UG) is a steroid-inducible, multifunctional, secreted protein with antiinflammatory and antichemotactic properties. Recently, we have reported a high affinity UG-binding protein (putative receptor), on several cell types, with an apparent molecular mass of 190 kDa (Kundu, G. C., Mantile, G., Miele, L., Cordella-Miele, E., and Mukherjee, A. B. (1996) Proc. Natl. Acad. Sci. U. S. A. 93, 2915-2919). Since UG is a homodimer in which the 70 amino acid subunits are connected by two disulfide bonds, we sought to determine whether UG monomers also interact with the 190-kDa UG-binding protein and if so, whether it has the same biological activity as the dimer. Surprisingly, we discovered that in addition to the 190-kDa species, another protein, with an apparent molecular mass of 49 kDa, binds reduced UG with high affinity and specificity. Both 49- and 190-kDa proteins are readily detectable on nontransformed NIH 3T3 and some murine cancer cells (e.g. mastocytoma, sarcoma, and lymphoma), while lacking on others (e.g. fibrosarcoma). Most

interestingly, pretreatment of the cells, which express the binding proteins, with reduced UG dramatically suppresses extracellular matrix (ECM) invasion, when such treatment had no effect on fibrosarcoma cells that lack the UG-binding proteins. Tissue-specific expression studies confirmed that while both 190- and 49-kDa UG-binding proteins are present in bovine heart, spleen, and the liver, only the 190-kDa protein is detectable in the trachea and in the lung. Neither the 190-kDa nor the 49-kDa protein was detectable in the aorta. **Purification** of these binding proteins from bovine spleen by UG-affinity chromatography and analysis by SDS-polyacrylamide gel electrophoresis followed by silver staining identified two protein bands with apparent molecular masses of 40 and 180 kDa, respectively. Treatment of the NIH 3T3 cells with specific cytokines (i.e. interleukin-6) and other agonists (i.e. lipopolysaccharide) caused a substantially increased level of I-125-UG binding but the same cells, when treated with platelet-derived growth factor, tumor necrosis factor-alpha, interferon-gamma, and phorbol 12-myristate 13-acetate, did not alter the UG binding. Taken together, these findings raise the possibility that UG, through its binding proteins, plays critical roles in the regulation of cellular motility and ECM invasion.

L7 ANSWER 8 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 94:438861 SCISEARCH
THE GENUINE ARTICLE: NX327
TITLE: HETEROLOGOUS EXPRESSION OF HUMAN UTEROGLOBIN POLYCHLORINATED BIPHENYL-BINDING PROTEIN - DETERMINATION OF LIGAND-BINDING PARAMETERS AND MECHANISM OF PHOSPHOLIPASE A(2) INHIBITION IN-VITRO
AUTHOR: ANDERSSON O; NORDLUNDMOLLER L; BARNES H J; LUND J (Reprint)
CORPORATE SOURCE: KAROLINSKA INST, HUDDINGE UNIV HOSP F60, NOVUM, DEPT LUNG MED, S-14186 HUDDINGE, SWEDEN (Reprint); KAROLINSKA INST, HUDDINGE UNIV HOSP F60, NOVUM, DEPT LUNG MED, S-14186 HUDDINGE, SWEDEN; KAROLINSKA INST, HUDDINGE UNIV HOSP F60, NOVUM, DEPT MED NUTR, S-14186 HUDDINGE, SWEDEN
COUNTRY OF AUTHOR: SWEDEN
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (22 JUL 1994) Vol. 269, No. 29, pp. 19081-19087.
ISSN: 0021-9258.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 53

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB High level expression of a human polychlorinated biphenyl-binding protein (hPCB-BP; also termed **uteroglobin** or CC10) was achieved in Escherichia coli. The **recombinant** protein (rhPCB-BP) constituted similar to 1% of total bacterial lysate proteins as judged from in vitro ligand binding assays using 4,4'-bis([H-3]methylsulfonyl)-2,2',5,5'-tetrachlorobiphenyl. rhPCB-BP was **purified** to homogeneity in its native dimeric form. Saturation analysis experiments indicated a K-d of similar to 69 nM for the binding of 4,4'-bis([H-3]methylsulfonyl)-2,2',5,5'-tetrachlorobiphenyl to rhPCB-BP. The average number of binding sites (B-max) calculated from such experiments on **purified** rhPCB-BP was 49 nmol/mg of protein and is close to the theoretical value of 1 mol of ligand associating with 1 mol of dimeric protein. **Purified** rhPCB-BP was also found to cause a dose-dependent inhibition of the enzyme orcine pancreatic phospholipase A(2) (PLA(2)) in vitro. Increasing the concentrations of

calcium abolished the inhibition of PLA(2) by rhPCB-BP, suggesting that the protein functions in vitro by sequestering Ca2+ an essential PLA(2) cofactor. This notion was further supported by direct evidence that Ca-45(2+) binds to rhPCB-BP. 1 mol of dimeric protein was also found to bind 2 mol of ruthenium red, an organic dye that detects Ca2+-binding proteins, with a K-d of 3 mu M. This binding was inhibited by Ca2+, with an IC50 of 7 mM. Finally, it was demonstrated that the addition of a high affinity ligand for the protein had no effect on its ability to inhibit PLA(2) under conditions of limiting concentrations of calcium, and the addition of Ca2+ did not affect the binding characteristics of the PCB ligand, suggesting that these two properties of the protein are independent. Our results strongly support the notion that ligand binding is a conserved feature of the homologous **uteroglobin**/PCB-BP/CC10 proteins in different species, whereas our results question the suggested role of these proteins as specific inhibitors of PLA(2).

L7 ANSWER 9 OF 12 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 93388608 MEDLINE
DOCUMENT NUMBER: 93388608 PubMed ID: 8104186
TITLE: Human Clara cell 10-kDa protein is the counterpart of rabbit uteroglobin.
AUTHOR: Mantile G; Miele L; Cordella-Miele E; Singh G; Katyal S L; Mukherjee A B
CORPORATE SOURCE: Section on Developmental Genetics, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland 20892.
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Sep 25) 268 (27) 20343-51.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199310
ENTRY DATE: Entered STN: 19931105
Last Updated on STN: 19950206
Entered Medline: 19931020

AB Human Clara cell 10-kDa protein has been suggested to be a counterpart of rabbit uteroglobin, an immunomodulatory and antiinflammatory secretory protein. Since this human protein is not readily available in substantial quantity for detailed characterization of its biochemical, biological, and pharmacological properties, we sought to express it in Escherichia coli in order to study its structure-function relationship. However, bacterial overproduction of homodimeric proteins with interchain disulfide bonds, such as Clara cell 10-kDa protein, was thought to be impossible until we achieved expression of native uteroglobin (Miele, L., Cordella-Miele, E., and Mukherjee, A.B. (1990) J. Biol. Chem. 265, 6427-6435). Here, we report high level production of **recombinant** native dimeric human Clara cell 10-kDa protein in E. coli and its characterization. **Recombinant** human Clara cell 10-kDa protein forms its disulfide bonds within the bacterial cytoplasm. The **purified** protein possesses two of the most important activities characteristic of **uteroglobin**: (i) it is an excellent substrate of transglutaminase, and (ii) it is a potent inhibitor of porcine pancreatic and, more importantly, human synovial phospholipase A2. These results demonstrate that human Clara cell 10-kDa protein and rabbit uteroglobin have very similar biochemical properties. Our data suggest that this protein may possess immunomodulatory and antiinflammatory activities of potential physiological and pharmacological importance.

L7 ANSWER 10 OF 12 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 90202925 MEDLINE
DOCUMENT NUMBER: 90202925 PubMed ID: 2318861
TITLE: High level bacterial expression of uteroglobin, a dimeric eukaryotic protein with two interchain disulfide bridges, in its natural quaternary structure.
AUTHOR: Miele L; Cordella-Miele E; Mukherjee A B
CORPORATE SOURCE: Section on Developmental Genetics, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland 20892.
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1990 Apr 15) 265 (11) 6427-35.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-M34596
ENTRY MONTH: 199005
ENTRY DATE: Entered STN: 19900601
Last Updated on STN: 19900601
Entered Medline: 19900510

AB Bacterial expression of eukaryotic proteins is a tool of ever-increasing importance in biochemistry and molecular biology. However, the majority of the **recombinant** eukaryotic proteins that have been expressed in bacteria are produced as fusion proteins and not in their native conformation. In particular, correct formation of quaternary structures by **recombinant** proteins in bacterial hosts has been reported very rarely. To our knowledge, correct intracellular formation of multimeric structures containing more than one interchain disulfide bridge has not been reported so far. We have constructed three plasmids which are able to direct expression of **recombinant** rabbit uteroglobin, a homodimeric protein with two interchain disulfide bridges, in Escherichia coli. Among these, the plasmid pLE103-1, in which the expression of **recombinant** uteroglobin is controlled by a bacteriophage T7 late promoter, is by far the most efficient. With pLE103-1, **recombinant** uteroglobin production reached about 10% of total bacterial soluble proteins. This protein accumulated in bacterial cells in dimeric form, as it is naturally found in the rabbit uterus. **Recombinant uteroglobin** was **purified** to near-homogeneity and its NH2-terminal amino acid sequence was confirmed to be identical to that of its natural counterpart, except for 2 Ala residues the codons for which were added during the plasmid construction. This protein was found to be as active a phospholipase A2 inhibitor as natural uteroglobin on a molar basis. To our knowledge, this is the first report of high level bacterial expression of a full length eukaryotic homodimeric protein with two interchain disulfide bridges in its natural, biologically active form. The plasmid pLE103-1 may be useful to explore structure-function relationships of rabbit uteroglobin. In addition, this plasmid may be useful in obtaining high level bacterial expression of other eukaryotic proteins with quaternary structure, as well as for other general applications requiring efficient bacterial expression of cDNAs.

L7 ANSWER 11 OF 12 MEDLINE on STN
ACCESSION NUMBER: 83008815 MEDLINE
DOCUMENT NUMBER: 83008815 PubMed ID: 7119650
TITLE: Hybridization analysis of steady-state levels of uteroglobin mRNA in rabbit uterus and lung during early

pregnancy.
AUTHOR: Kumar N M; Bullock D W
CONTRACT NUMBER: HD09378 (NICHD)
SOURCE: JOURNAL OF ENDOCRINOLOGY, (1982 Sep) 94 (3) 407-14.
Journal code: 0375363. ISSN: 0022-0795.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198212
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19970203
Entered Medline: 19821203

AB Uteroglobin is a predominant protein in the rabbit uterus, where it is induced by progesterone, and occurs also in the lung, where its level is constitutive. A **recombinant** plasmid containing **uteroglobin** complementary DNA (cDNA) has been constructed previously from partially **purified uteroglobin** mRNA. In this study, the cloned uteroglobin cDNA has been used as a probe to determine the cellular content of uteroglobin mRNA at different times in early pregnancy in both rabbit uterus and lung. By RNA-excess hybridization to poly A-enriched RNA and to total nucleic acid extracts an increase in steady-state uteroglobin mRNA level was detected, from approximately 250 molecules/uterine epithelial cell in non-pregnant rabbits to approximately 6800 molecules/cell on day 4 of pregnancy, after which the levels declined progressively up to day 8. The pulmonary level of uteroglobin mRNA was about 400 molecules/cell and did not change significantly with day of pregnancy. The major factor in regulating the production of uteroglobin in the uterus of pregnant rabbits is the accumulation and subsequent depletion of its mRNA.

L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 1980:527325 CAPLUS
DOCUMENT NUMBER: 93:127325
TITLE: Cloning of the rabbit uteroglobin structural gene
AUTHOR(S): Chandra, T.; Woo, S. L. C.; Bullock, D. W.
CORPORATE SOURCE: Howard Hughes Med. Inst., Baylor Coll. Med., Houston, TX, 77030, USA
SOURCE: Biochemical and Biophysical Research Communications (1980), 95(1), 197-204
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The mRNA coding for **uteroglobin**, a progesterone-induced uterine protein, was partially **purified** from 4-day pregnant rabbit uterus. Double-stranded DNA synthesized from the partially purified mRNA prepn. was inserted into the PstI site of pBR322. Bacterial transformants contg. uteroglobin DNA sequences were identified by their ability to enrich for uteroglobin mRNA on hybridization with total uterine poly(A)-RNA. The identity of 1 **recombinant** was confirmed unambiguously by matching its nucleotide sequence with the amino acid sequence of the uteroglobin polypeptide.

=> s nominal(w)molecular(w)weight(w)cut(w)off
L8 60 NOMINAL(W) MOLECULAR(W) WEIGHT(W) CUT(W) OFF

=> s l8 and membrane
L9 52 L8 AND MEMBRANE

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=> dup rem l9
PROCESSING COMPLETED FOR L9
L10          34 DUP REM L9 (18 DUPLICATES REMOVED)

=> d his

     (FILE 'HOME' ENTERED AT 16:32:14 ON 30 DEC 2003)

     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS' ENTERED AT 16:34:26 ON 30 DEC
     2003
L1         2265 S UTEROGLOBIN OR BLASTOKININ
L2       714840 S RECOMBINANT OR ENGINEERED
L3          105 S L1(S)L2
L4           63 DUP REM L3 (42 DUPLICATES REMOVED)
L5          151 S (PURIFY OR PURIFYING OR PURIFIED OR PURIFICATION)(S)L1
L6           18 S L5 AND L2
L7           12 DUP REM L6 (6 DUPLICATES REMOVED)
L8           60 S NOMINAL(W)MOLECULAR(W)WEIGHT(W)CUT(W)OFF
L9           52 S L8 AND MEMBRANE
L10          34 DUP REM L9 (18 DUPLICATES REMOVED)

=> s (PURIFY OR PURIFYING OR PURIFIED OR PURIFICATION) and l34
L34 NOT FOUND
The L-number entered could not be found.  To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s (PURIFY OR PURIFYING OR PURIFIED OR PURIFICATION) and l10
L11          7 (PURIFY OR PURIFYING OR PURIFIED OR PURIFICATION) AND L10

=> d ibib abs 1-7

L11  ANSWER 1 OF 7     MEDLINE on STN
ACCESSION NUMBER:   2003152084     MEDLINE
DOCUMENT NUMBER:    22555015   PubMed ID: 12667687
TITLE:              A protocol for 'enhanced pepsin digestion': a step by step
                    method for obtaining pure antibody fragments in high yield
                    from serum.
AUTHOR:             Jones R G A; Landon J
CORPORATE SOURCE:   Division of Bacteriology, National Institute for Biological
                    Standards and Control (NIBSC), Blanche Lane, South Mimms,
                    Potters Bar, Hertfordshire EN6 3QG, UK.. rjones@nibsc.ac.uk
SOURCE:             JOURNAL OF IMMUNOLOGICAL METHODS, (2003 Apr 1) 275 (1-2)
                    239-50.
                    Journal code: 1305440. ISSN: 0022-1759.
PUB. COUNTRY:       Netherlands
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200305
ENTRY DATE:         Entered STN: 20030402
                    Last Updated on STN: 20030524
                    Entered Medline: 20030523
AB   The digestion of ovine antiserum under acidic conditions (pH 3.5) by
     pepsin is highly effective at reducing all unwanted serum components to
     low molecular weight (< or =13 kDa) fragments while leaving the
     approximately 100-kDa F(ab')(2) intact.  The pH is then raised to 6 to
     stop further digestion and the reaction mixture centrifuged or filtered to
     remove any insoluble contaminants.  Next, unwanted low molecular weight
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fragments are removed by diafiltration with a 30-kDa **nominal molecular weight cut-off** **membrane** leaving an F(ab')(2) solution contaminated only with some pepsin and a small amount of the aggregated low molecular weight fragments. Material of this purity is suitable for many applications but, since all the contaminants are highly acidic, they can be easily removed by passage down an anion-exchange column to yield F(ab')(2) that is essentially free from pepsin and aggregates with a typical purity of over 96% and yields of 16-19 g/l serum. When an antivenom was processed, approximately 78% of the original serum's toxin neutralising capacity was recovered. This simple, high yield protocol for processing serum to highly **purified** F(ab')(2) avoids the need for an initial or any subsequent salt precipitation step and can be utilised for either bench or large scale production. If required, a mild reducing agent may be used finally to create Fab fragments.

L11 ANSWER 2 OF 7 MEDLINE on STN
ACCESSION NUMBER: 2002302895 MEDLINE
DOCUMENT NUMBER: 22038934 PubMed ID: 12044067
TITLE: Organic colloid separation in contrasting aquatic environments with tangential flow filtration.
AUTHOR: Gueguen C; Belin C; Dominik J
CORPORATE SOURCE: Institut F.-A. Forel, Universite de Geneve, Versoix, Switzerland.. celine.gueguen@terre.unige.ch
SOURCE: WATER RESEARCH, (2002 Apr) 36 (7) 1677-84. Journal code: 0105072. ISSN: 0043-1354.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200301
ENTRY DATE: Entered STN: 20020605
Last Updated on STN: 20030111
Entered Medline: 20030110

AB The use of tangential flow filtration (TFF) for size fractionation of natural dissolved organic matter was investigated. The performance of regenerated cellulose **membrane** with a **nominal molecular weight cut-off** of 1 kDa was examined on 20 samples from lake, river and estuary systems, characterised by contrasting dissolved organic carbon (DOC) contents and conductivity. The evaluation was based on absorbance, fluorescence and DOC measurements. Detailed protocols of **membrane** cleaning and conditioning nation are proposed. The ultrafiltration **membrane** can efficiently be cleaned to provide low carbon blank (<0.01 mg/L). Fluorescence measurements confirmed that the higher molecular weight compounds were isolated in the retentate and the lower molecular weight remain in the permeate. Mass balance for natural samples show good recovery for DOC (109 +/- 12%, n = 20) and fluorescence measurements (106 +/- 9%, n = 13). No relation between factors of concentration (fc) and mass balance quality was observed for the fc range 1.5-11. Moreover, high ionic strength and high DOC contents did not enhance **membrane** fouling. These findings demonstrate that reliable fractionations by TFF of natural organic colloids in aquatic systems can be achieved.

L11 ANSWER 3 OF 7 MEDLINE on STN
ACCESSION NUMBER: 2001305155 MEDLINE
DOCUMENT NUMBER: 20552377 PubMed ID: 11091173
TITLE: Membranes for endotoxin removal from dialysate: considerations on feasibility of commercial ceramic

membranes.
AUTHOR: Bender H; Pflazel A; Saunders N; Czermak P; Catapano G; Vienken J
CORPORATE SOURCE: Biotechnologie Gesellschaft Mittelhessen mbH, Giessen, Germany.
SOURCE: ARTIFICIAL ORGANS, (2000 Oct) 24 (10) 826-9.
Journal code: 7802778. ISSN: 0160-564X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 20010604
Last Updated on STN: 20010604
Entered Medline: 20010531

AB As the quality of water in dialysis fluid varies considerably, dialysate is often contaminated by large amounts of bacteria and endotoxins. **Membrane** properties and operating pressures are acknowledged to give high-flux dialysis with bicarbonate the bacteriological potential to favor passage of endotoxin fragments from the dialysate into the blood stream. Therefore, a sterile dialysate will have to become a standard. Ultrafiltration across hydrophobic synthetic membranes was shown to remove endotoxins (and their fragments) from dialysis water by the combined effect of filtration and adsorption. However, each module can be used for a limited time only. Ceramic membranes may represent an alternative to polymeric membranes for endotoxin removal. In this article, we tested the capacity of different commercial ceramic membranes with **nominal molecular weight cut-off** down to 1,000 to retain endotoxins from Ps. aeruginosa. The tested membranes did not generally produce dialysate meeting the Association for the Advancement of Medical Instrumentation standard. When using aluminum-containing membranes, we detected aluminum leaking into the dialysate that could possibly be transported into the blood stream.

L11 ANSWER 4 OF 7 MEDLINE on STN
ACCESSION NUMBER: 89027149 MEDLINE
DOCUMENT NUMBER: 89027149 PubMed ID: 2846096
TITLE: Virus removal or inactivation in hemoglobin solutions by ultrafiltration or detergent/solvent treatment.
AUTHOR: Bechtel M K; Bagdasarian A; Olson W P; Estep T N
CORPORATE SOURCE: Travenol Laboratories, Inc., Hyland Therapeutics Research Facility, Duarte, California 91010.
SOURCE: BIOMATERIALS, ARTIFICIAL CELLS, AND ARTIFICIAL ORGANS, (1988) 16 (1-3) 123-8.
Journal code: 8802605. ISSN: 0890-5533.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198812
ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19990129
Entered Medline: 19881208

AB Two procedures to eliminate virus infectivity from hemoglobin solutions at ambient temperature were evaluated. In the first, virus removal was assessed during the ultrafiltration of hemoglobin solutions through a **membrane** with a **nominal molecular weight cut-off** of 100,000 Daltons. The results of this study demonstrated that less than 0.1% of any virus

originally spiked into the solution was detectable in the ultrafiltrate. In the second procedure the inactivation of viruses in hemoglobin solutions incubated with tri(n-butyl)phosphate mixed with sodium cholate was studied. Greater than 99% of each of the enveloped viruses tested was inactivated during the first 15 minutes of incubation with greater than 10(5) plaque forming units/ml of each being inactivated after one to six hours. No inactivation of the non-enveloped poliovirus was effected by this treatment. The data imply that both ultrafiltration and detergent/solvent incubation may reduce virus infectivity in hemoglobin solutions, but neither method yields a completely virus free product.

L11 ANSWER 5 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 1998:655690 SCISEARCH
THE GENUINE ARTICLE: 113CK
TITLE: Virus removal in a **membrane** separation process
AUTHOR: Otaki M (Reprint); Yano K; Ohgaki S
CORPORATE SOURCE: UNIV TOKYO, DEPT URBAN ENGN, BUNKYO KU, 7-3-1 HONGO, TOKYO 1138656, JAPAN (Reprint); TOKYO METROPOLITAN RES LAB PUBL HLTH, SHINJUKU KU, TOKYO 169, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: WATER SCIENCE AND TECHNOLOGY, (JUL 1998) Vol. 37, No. 10, pp. 107-116.
Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND.
ISSN: 0273-1223.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: AGRI
LANGUAGE: English
REFERENCE COUNT: 7
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Recently, **membrane** technology has been considered an alternative to conventional water **purification**. To study the fate of viruses in **membrane** processes, indigenous coliphages in pilot scale **membrane** processes located in the eastern part of Tokyo Metropolitan area have been surveyed for 6 months. This plant used river water as its resource and had two microfiltration **membrane** processes which had different pore sizes (0.2 mu m and 0.1 mu m) and one ultrafiltration process which had 13,000 **nominal molecular weight cut off**. To detect indigenous coliphages, E. coli K12 F+(A/lambda) and E. coli C were used as host bacteria. E. coli K12 F+(A/lambda) can detect both DNA and RNA phages and E. coli C can only DNA phage. The resource water contained E. coli K12 phages at 200-1500 PFU/100 mL and the removal ratio of these DNA and RNA phages was lower than that of DNA phage by E. coli C in both MF **membrane** processes through 6 months. It is thought to be caused by difference of phage size, because DNA phage is bigger than RNA phage in general. The removal ratio of E. coli K12 and E. coli C phages reached 100% in the UF **membrane** process. According to the comparison of the concentration of phages in solution and eluted from suspended solid in resource and drain, it is thought that most phages concentrated in the drain were absorbed in suspended solids. To make certain of the removal ratio in UF and NF (nanofiltration) processes, high concentrations of coliphage Q beta and poliomyelitis virus vaccine were fed into these processes. The removal ratio of coliphage Q beta in UF and NF processes are 10(-8.3) and 10(-6.3) respectively, and the ratio of poliomyelitis virus vaccine in UF and NF are <10(-6.7) and <10(-7.3) respectively.

L11 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2000:313634 BIOSIS
DOCUMENT NUMBER: PREV200000313634
TITLE: Influence of **membrane** processing on functional properties of rapeseed protein preparations.
AUTHOR(S): Dluzewska, Elzbieta [Reprint author]; Gwiazda, Stanislaw; Leszczynski, Krzysztof
CORPORATE SOURCE: Katedra Technologii Zboz, Nasion Oleistych i Koncentratow Spozywczych, Szkola Glowna Gospodarstwa Wiejskiego, ul. Grochowska 272, 03-849, Warszawa, Poland
SOURCE: Polish Journal of Food and Nutrition Sciences, (2000) Vol. 9, No. 2, pp. 35-39. print.
ISSN: 1230-0322.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jul 2000
Last Updated on STN: 7 Jan 2002

AB The rapeseed protein preparations were obtained by isolation of proteins from the extracted, non-toasted meal by means of the fractionation and enzymatic modification of proteins with utilisation of **membrane** techniques. Enzymatic hydrolysis of proteins was performed during extraction by means of Alcalase 2.5L in the portion of 9 AU/kg of the substrate protein. To recover and **purify** the non-precipitating in coagulation regime protein fractions, the **membrane** techniques were used. The ultrafiltration and diafiltration were performed in the unit for cross-flow ultrafiltration with hollow-fibre **membrane** cartridges with a **nominal molecular weight cut-off** range of 20, 70 and 100 kDa, respectively. The influence of the molecular weight cut-off, yield of filtration, concentration factor during ultrafiltration and diafiltration step on the foaming and emulsifying properties of the rapeseed protein preparations was investigated. It has been shown that the application of the **membrane** cartridges with molecular weight cut-off range of 20 kDa gives relatively the highest recovery of rapeseed "albumin" fraction and by the way it allows obtaining of preparations with better foaming and emulsifying properties. The improvement of properties mentioned above was dependent, to a greater extent, on the diafiltration step than on the concentration factor.

L11 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1989:330961 BIOSIS
DOCUMENT NUMBER: PREV198988033961; BA88:33961
TITLE: COMPARATIVE EVALUATION OF ULTRAFILTRATION MEMBRANES FOR **PURIFICATION** OF SYNTHETIC PEPTIDES.
AUTHOR(S): MOUROT P [Reprint author]; OLIVER M
CORPORATE SOURCE: BIOTECHNOL RES INST, NATL RES COUNCIL CANADA, MONTREAL H4P 2R2, CAN
SOURCE: Separation Science and Technology, (1989) Vol. 24, No. 5-6, pp. 353-368.
CODEN: SSTEDS. ISSN: 0149-6395.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 20 Jul 1989
Last Updated on STN: 27 Jul 1989

AB Published information on the use of ultrafiltration to separate natural and synthetic peptides from each other, and from low-molecular-weight impurities, is reviewed. The suitability of commercial membranes of low **nominal molecular weight cut-off** (500-8000 daltons) for fractionation of synthetic peptides was

evaluated with a model mixture of a hexapeptide (MW 844), insulin (MW 5730), and cytochrome c (MW 12,384) in 5% acetic acid. Diafiltration in a cross-flow thin-channel device allowed graphical determination of the retention coefficient for each solute on each **membrane**; fouling and cleanability were also assessed. Regenerated cellulose and cellulose acetate membranes did not foul, were chemically resistant, and fractionated efficiently. Other **membrane** types, including polysulfone and Teflon, fouled and were difficult to clean. Cellulosic membranes can be successfully intergrated into the **purification** of synthetic peptides.

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Executing the logoff script...

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	81.52	82.36
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.60	-2.60

STN INTERNATIONAL LOGOFF AT 16:38:18 ON 30 DEC 2003